UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

May 13, 1991

Mr. James Shafer (Code 1421)
Northern Division
Naval Facilities Engineering Command
U.S. Naval Base, Bldg. 77 Low
Philadelphia, PA 19112-5094

Subj: Additional EPA Comments
Draft Focused Feasibility Study
Sites 1 & 3
Naval Air Station Brunswick
Brunswick, Maine

Dear Mr. Shafer:

This letter contains several comments regarding the "Draft Focused Feasibility Study (FFS), Sites 1 and 3" dated April 1991, for the Naval Air Station Brunswick in Brunswick, Maine. This comment letter supplements the Environmental Protection Agency's (EPA's) previous comments submitted in a letter dated May 9, 1991.

The following additional comments pertain to the modeling effort associated with the FFS.

- The data sets used should be provided.

- Additional discussion regarding modeling assumptions and modeling procedures is necessary.

  A discussion of model sensitivity or residual errors is needed.

- Provide a discussion of mass balance or groundwater flux rates and how they relate to field information on aquifer discharge.

  Figure B-5: The configuration of the barrier wall does not agree with that shown on Figure 3-5. Explain the differences. Nodes that represent capped areas are not visible on this figure. Change the pattern or the map.

  Figure B-6: The density of water level contours at the northern end of the landfill area appear to be interpolated from nodal averages. What are the nodal water levels? Node

size for much of the landfill area appears to be too large. Closer spacing should be used in this area of the text.

Discuss upstream and downstream leakages.

- Figure B-9: Capped area nodes are not visible on the map. Change the pattern or the map.

The above comments, as well as several others regarding modeling discussed in EPA's letter dated May 9,1991, must be addressed before EPA can ascertain whether various remedial alternatives may or may not work since the basic modeling accuracy cannot be judged at this time. In order to help the Navy/E.C. Jordan provide the necessary information on modeling efforts, I am providing a document for reference which discusses the topics which need to be discussed in support of a computer model. The highlighted portions of this document outline areas which must be included in the modeling narrative.

In addition to the modeling comments I have attached a second letter from the National Oceanic and Atmospheric Administration (NOAA) dated May 10, 1991. In this letter NOAA states that the clean-up level for mercury, as presented in the FFS, may not be protective of aquatic organisms (NOAA resources). Protectiveness of NOAA resources must be addressed in the Navy's responses to EPA comments.

Should you have any questions regarding the additional comments please contact me at (617)573-5785.

Sincerely,

Meghan F. Cassidy

Meghan F. Cassidy
Remedial Project Manager

cc: Cmdr. Ron Terry/NASB
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State of California
Department of Health Services

BOOK II

SCIENTIFIC AND TECHNICAL STANDARDS FOR HAZARDOUS WASTE SITES

VOLUME 2: EXPOSURE ASSESSMENT
VOLUME 3: TOXICITY ASSESSMENT AND RISK CHARACTERIZATION
VOLUME 4: SOIL REMEDIATION LEVELS

vol. 2, chapter 4
mathematical modeling

prepared by

Toxic Substances Control Program
Program & Administrative Support Division
Technical Services Branch

August 1990

State of California
Department of Health Services

SCIENTIFIC AND TECHNICAL STANDARDS
FOR HAZARDOUS WASTE SITES

VOLUME 2: EXPOSURE ASSESSMENT

CHAPTER 4

STANDARDS FOR MATHEMATICAL MODELING OF GROUND WATER FLOW AND CONTAMINANT TRANSPORT AT HAZARDOUS WASTE SITES

by

Toxic Substances Control Program
Program and Administrative Support Division
Technical Services Branch
Geological Services Unit

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